

REMARKS

Claims 1, 2, 4-7 and 21-31 were pending and considered. Claims 21, 22, 29 and 31 have been allowed, and claims 2, 4, 27 and 28 have been objected to, but indicated to be allowable. Claims 1, 5-7, 23-26 and 30 have been rejected. In response, claims 1, 2, 4-6, 23-27 and 30 have been amended. Upon entry of this amendment, claims 1, 2, 4-7 and 21-31 will remain pending. Reconsideration and allowance are respectfully requested.

Applicants gratefully acknowledge the Examiner's indication that claims 21, 22, 29 and 31 are allowed. Applicants further acknowledge with appreciation the indication that claims 2, 4, 27 and 28 would be allowable if rewritten in independent form. In response, claims 2, 4 and 27 have been amended. Accordingly, the Applicants are of the opinion that claims 2, 4, 27 and 28 are now allowable.

Specifically, claim 2 has been rewritten to include all of the limitations of claim 1 from which claim 2 depended previously. Accordingly, Applicant respectfully submits that claim 2 is now presented in proper independent form and should be allowed.

Claim 4 has been amended to depend from claim 2 and therefore should be allowable without further amendment.

Claim 27 has been rewritten to include all of the limitations of claim 23 from which claim 27 depended previously. Accordingly, Applicants respectfully submit that claim 27 is now presented in proper independent form and also should be allowed.

Claim 28 depends from claim 27 which is now in proper independent form. Therefore, it is respectfully submitted that claim 28 should be allowed without amendment.

Claims 23-28 were rejected under 35 U.S.C. §112, second paragraph. In response, claim 23 has been amended with the Examiner's comments in mind. Specifically, the phrase objected

to by the Examiner has been deleted from claim 23. Claims 24-28 were included in this rejection because each depended from claim 23. Therefore, in view of the amendment to claim 23, Applicants respectfully submit that the rejection under 35 U.S.C. §112 should be removed with respect to each of claims 23-28.

Claims 1, 5-7, 23-26 and 30 have been rejected under 35 U.S.C. §103 as being unpatentable over U.S. Patent No. 5,813,226 (Krone, et al.). The Examiner acknowledges short comings in the teaching of Krone, but states that “it is well known to combine a plurality of valves into a valve block assembly, for the purpose of ease of assembly of the system.” In response, claims 1, 5-7, 23-26 and 30 have been amended to more clearly recite differences between the present invention and the teaching of Krone, et al. Accordingly, Applicants believe that all claims are now allowable. Reconsideration and allowance are respectfully requested.

Krone, et al. teaches a control scheme for pressure relief, showing a first circuit 16 and stating that a second, similar circuit 18 is provided, but not shown in detail (column 2, lines 63-65). First circuit 16 includes a valve mechanism 28 having four two-position valves 40, 42, 44, 46 (column 3, lines 9-11). Each of the four valves 40, 42, 44, 46 in circuit 16 is used to control a single actuator 34. Since a second circuit 18 is stated to be “substantially the same”, Krone, et al. teaches a first circuit having four valves to control one actuator and a second circuit including a similar arrangement of four valves to control a second actuator. Control of two actuators is effected through two valve mechanisms, each valve mechanism having four valves therein. Eight valves are provided to control two loads.

In contrast to the teaching of Krone, et al. the present invention provides a single valve assembly in which separate independently controllable valves in the valve assembly are provided to control two separate loads. One separate independently controllable infinitely variable valve

controls the first load, and a second independently controllable infinitely variable valve controls the second load. A third independently controllable valve is provided by which fluid can be bypassed to the tank.

Thus, in contrast to the teaching of Krone, et al. claim 1 and 30 as amended each recite in part:

an independent metering valve assembly comprising: a first independently controllable infinitely variable valve ... to control ... the first hydraulic load, and a second independently controllable infinitely variable valve .. to control ... the second hydraulic load, and a third independently controllable infinitely variable valve ... to control flow from one of the first and second ... valves to the tank; ...

In further contrast to the teaching of Krone, et al., claim 23 as amended recites in part:

directing fluid ... to a first hydraulic load through a first independently controllable infinitely variable valve in the valve assembly; communicating fluid ... to a second hydraulic load through a second independently controllable infinitely variable valve in the valve assembly; and controlling flow ... through a third independently controllable infinitely variable valve in the valve assembly, ... fluidly connected between the one of the first or second hydraulic loads and a tank.

Accordingly, Applicants submit that each of independent claims 1, 23 and 30 recites an invention not taught or suggested by Krone, et al, which includes advantages over the prior art.

Reconsideration and allowance are respectfully requested

As recited in independent claims 1, 23 and 30, a valve assembly in accordance with the present invention includes at least three independently controllable valves by which two different loads are separately and independently controlled. Krone, et al. teaches only a system in which a first circuit has a valve assembly including four valves for controlling one load coupled with a second circuit in which a valve assembly having a similar arrangement of four valves controls a

second load. Thus, Krone, et al. teaches eight valves in two different valve assemblies for controlling two loads, in contrast to the present invention in which a single valve assembly including three, or as recited in some dependent claims four valves controls two different loads independently. The present invention is much more than an arrangement that is simplified by the mere integration of valves in an assembly as suggested by the Examiner. The present invention provides an arrangement in which fewer valves are used in one single valve assembly to control two separate loads independently. For these reasons, Applicants submit that claims 1, 23 and 30 should be allowed.

Claims 5-7 depend from claim 1, and include all of the limitations thereof while adding further specificity to the invention recited therein. Additionally, claims 5-7 have been amended to more clearly recite the independence of the valves recited therein, and the relative positions of the valves within the circuit, with respect to the first and second loads. Accordingly, Applicants submit that claims 5-7 should be allowed together with claim 1 from which they depend. Further, each should be allowed on its own merits for the additional limitations recited therein.

Claims 25 and 26 depend from claim 23, and include all of the limitations thereof while adding further specificity to the invention recited therein. Additionally, claims 25 and 26 have been amended to more clearly recite the independence of the valves recited therein. Accordingly, Applicants submit that claims 25 and 26 should be allowed together with claim 23 from which they depend. Further, each should be allowed on its own merits for the additional limitations recited therein.

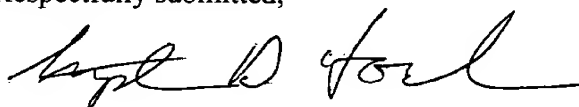
For the foregoing reasons, Applicants submit that the pending claims are definite and do particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Moreover, Applicants submit that no combination of the cited references teaches,

discloses or suggests the subject matter of the amended claims. The pending claims are therefore in condition for allowance, and Applicants respectfully request withdrawal of all rejections and allowance of the claims.

In the event Applicants have overlooked the need for an extension of time, an additional extension of time, payment of fee, or additional payment of fee, Applicants hereby conditionally petition therefor and authorizes that any charges be made to Deposit Account No. 20-0095, TAYLOR & AUST, P.C.

Should any question concerning any of the foregoing arise, the Examiner is invited to telephone the undersigned at (260) 897-3400.

Respectfully submitted,



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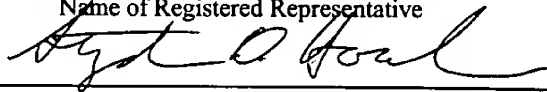
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